

T5 PORT
EXPANSION
UNIT

EXTERNAL INTERFACE IN SERVER

FIG. 2

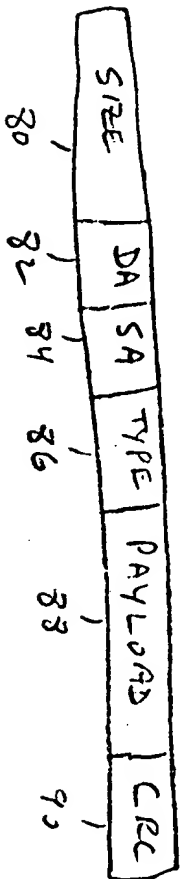


FIG. 3

00000000000000000000000000000000

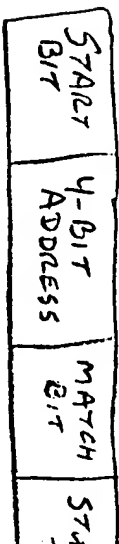


FIG. 4

TO
EXT
PH.

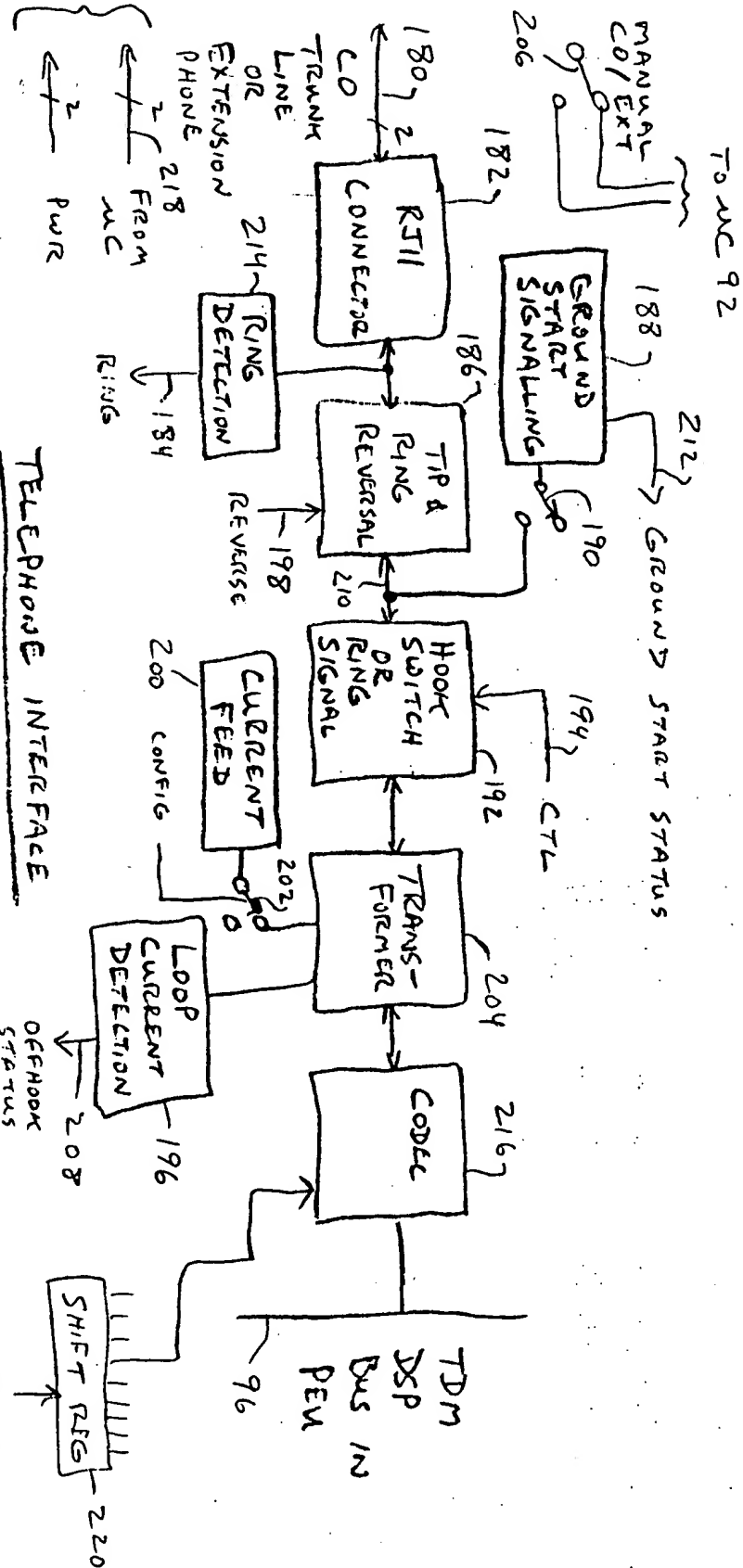


FIG. 6

00546976-04.1.00

PEU Processing

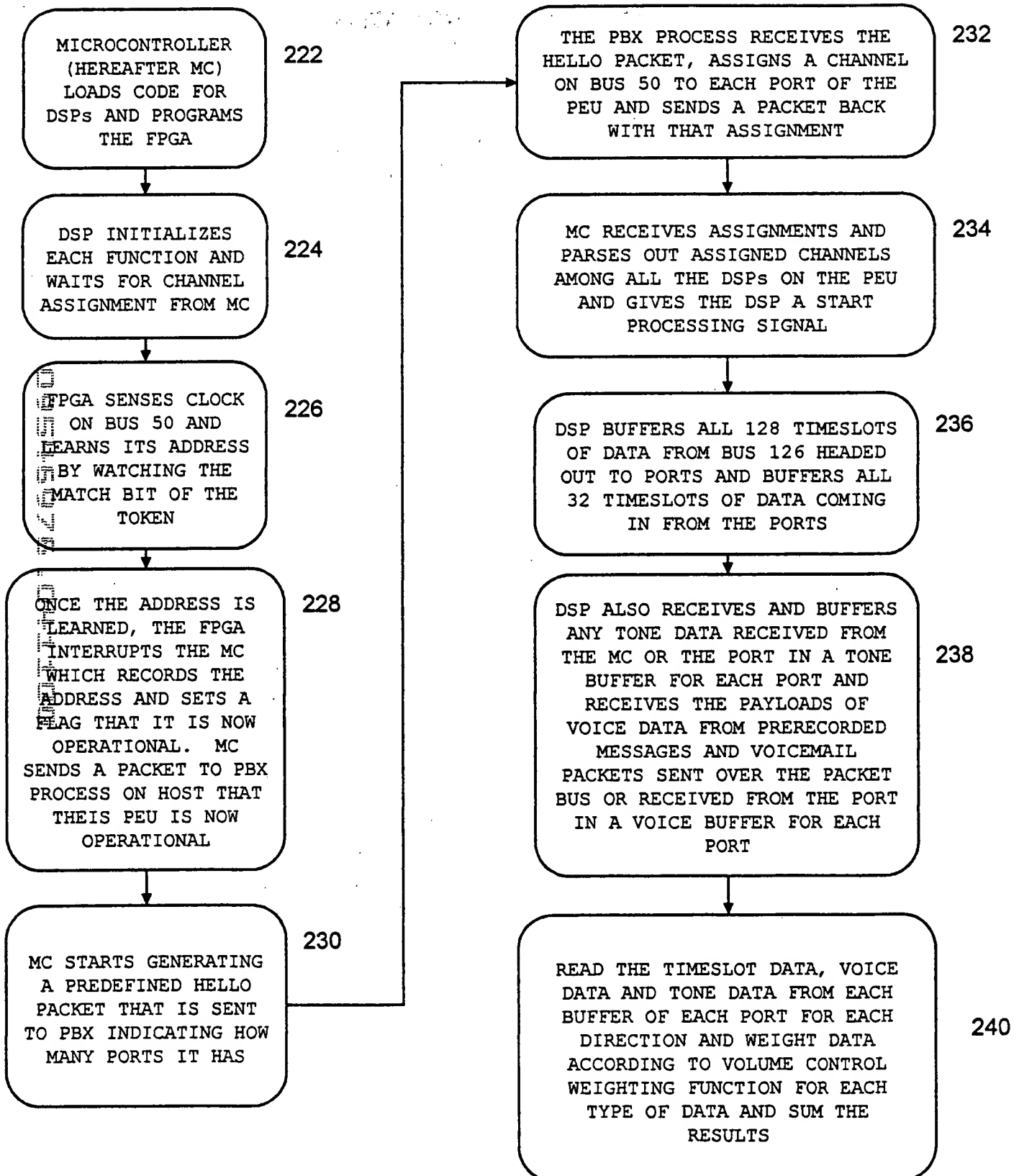


FIG. 7A

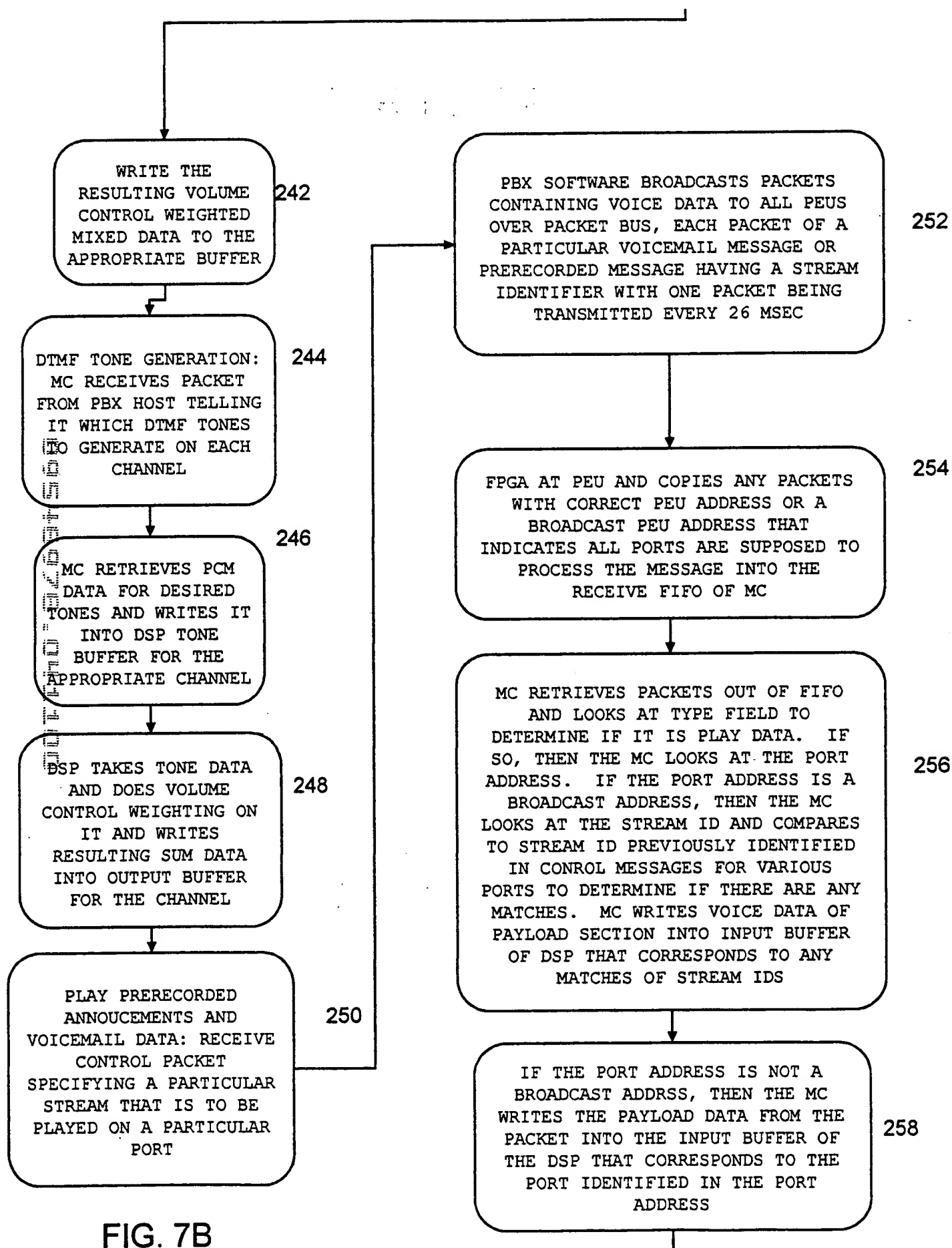


FIG. 7B

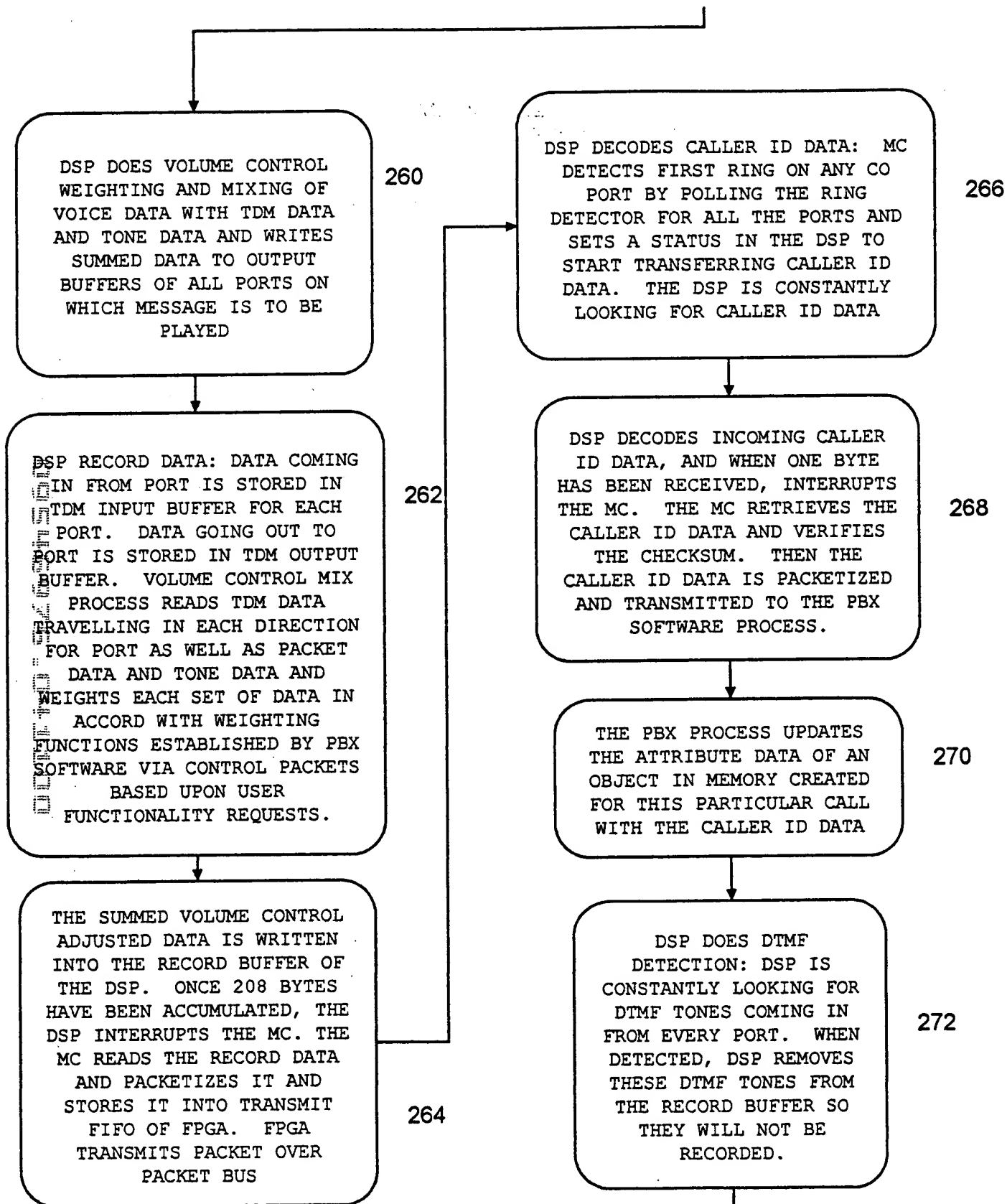


FIG. 7C

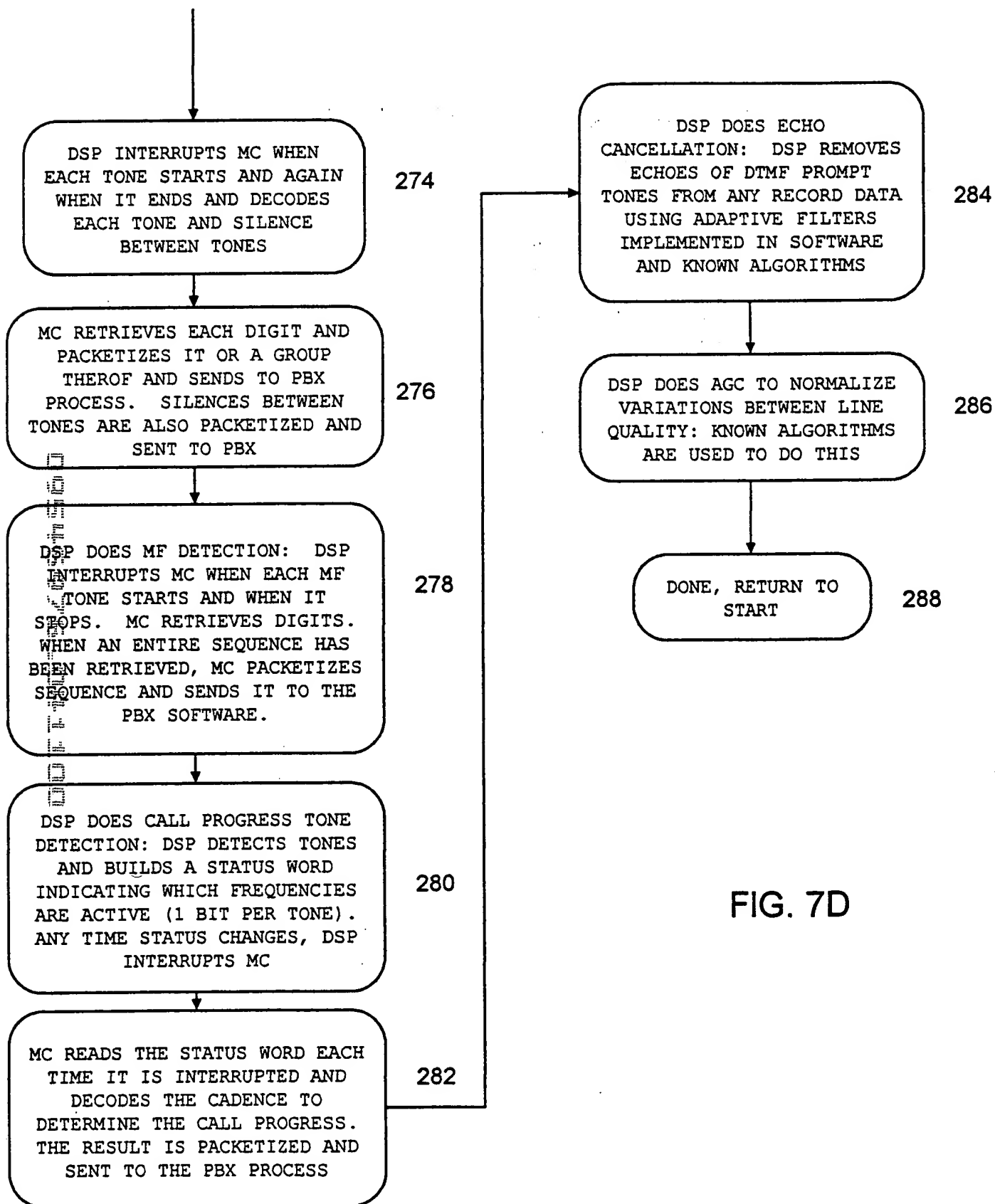
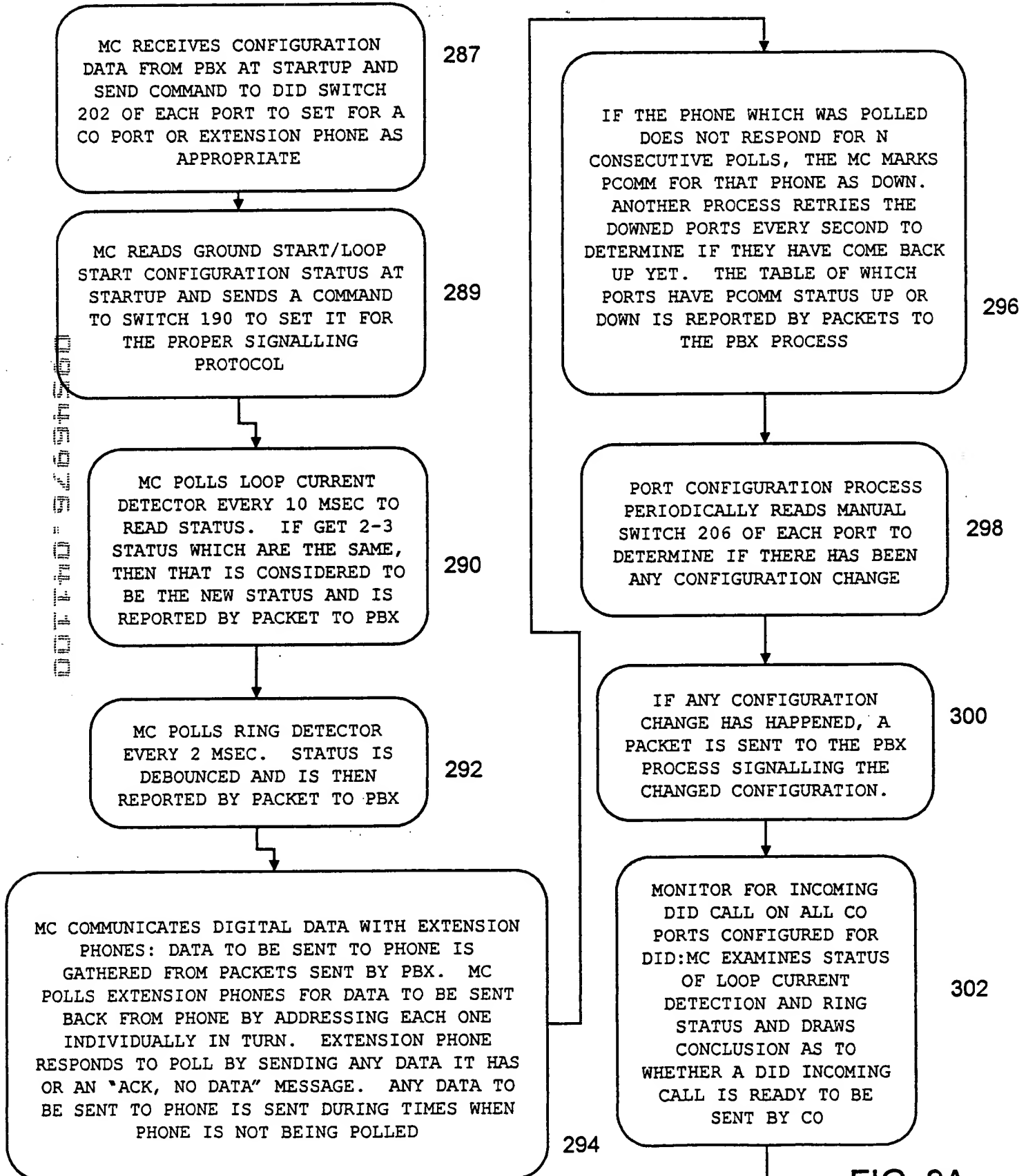
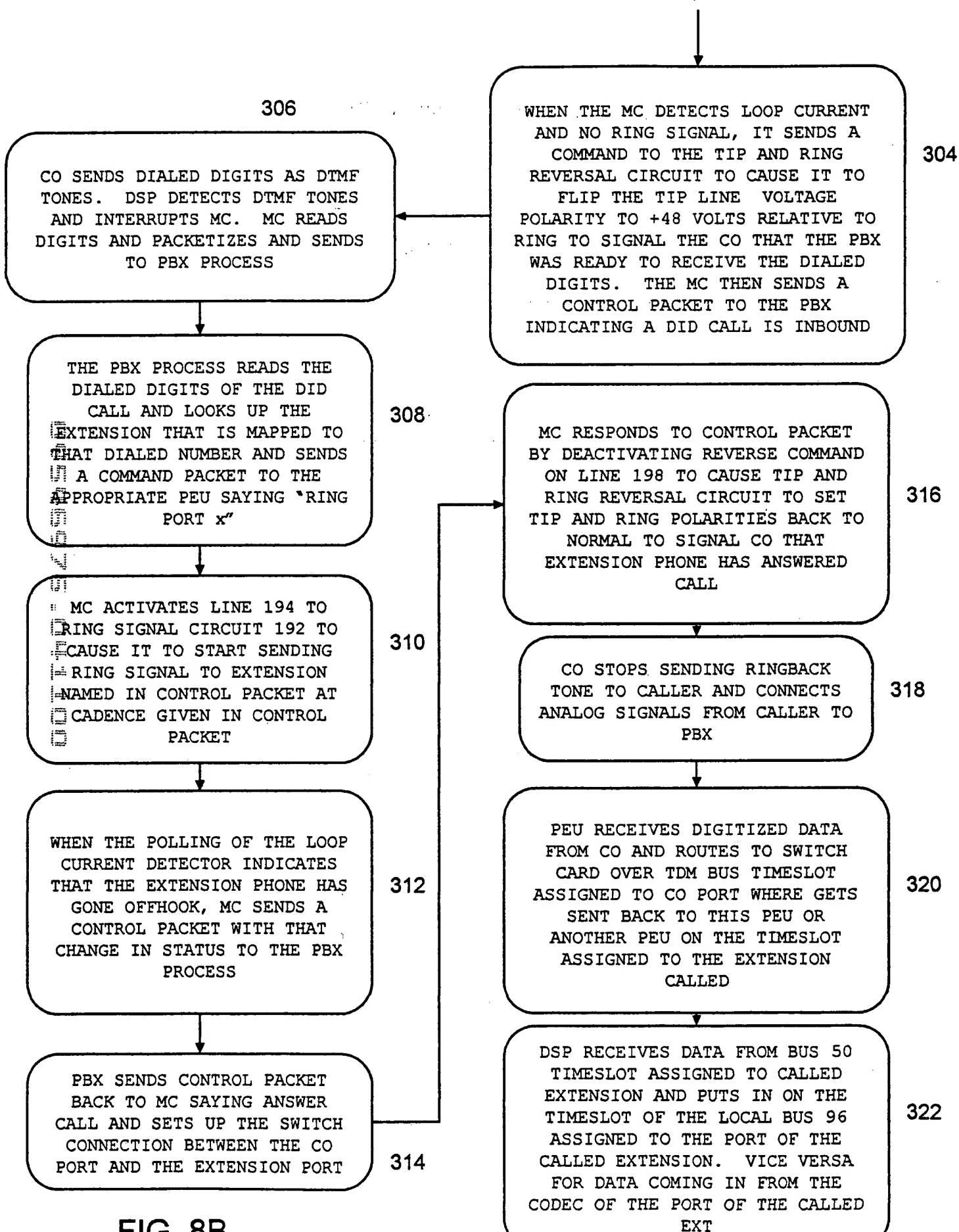


FIG. 7D

MC-TELEPHONE INTERFACE PROCESSING FOR INCOMING CALL





MICROCONTROLLER-TEL INTERFACE PROCESSING FOR OUTGOING CALL

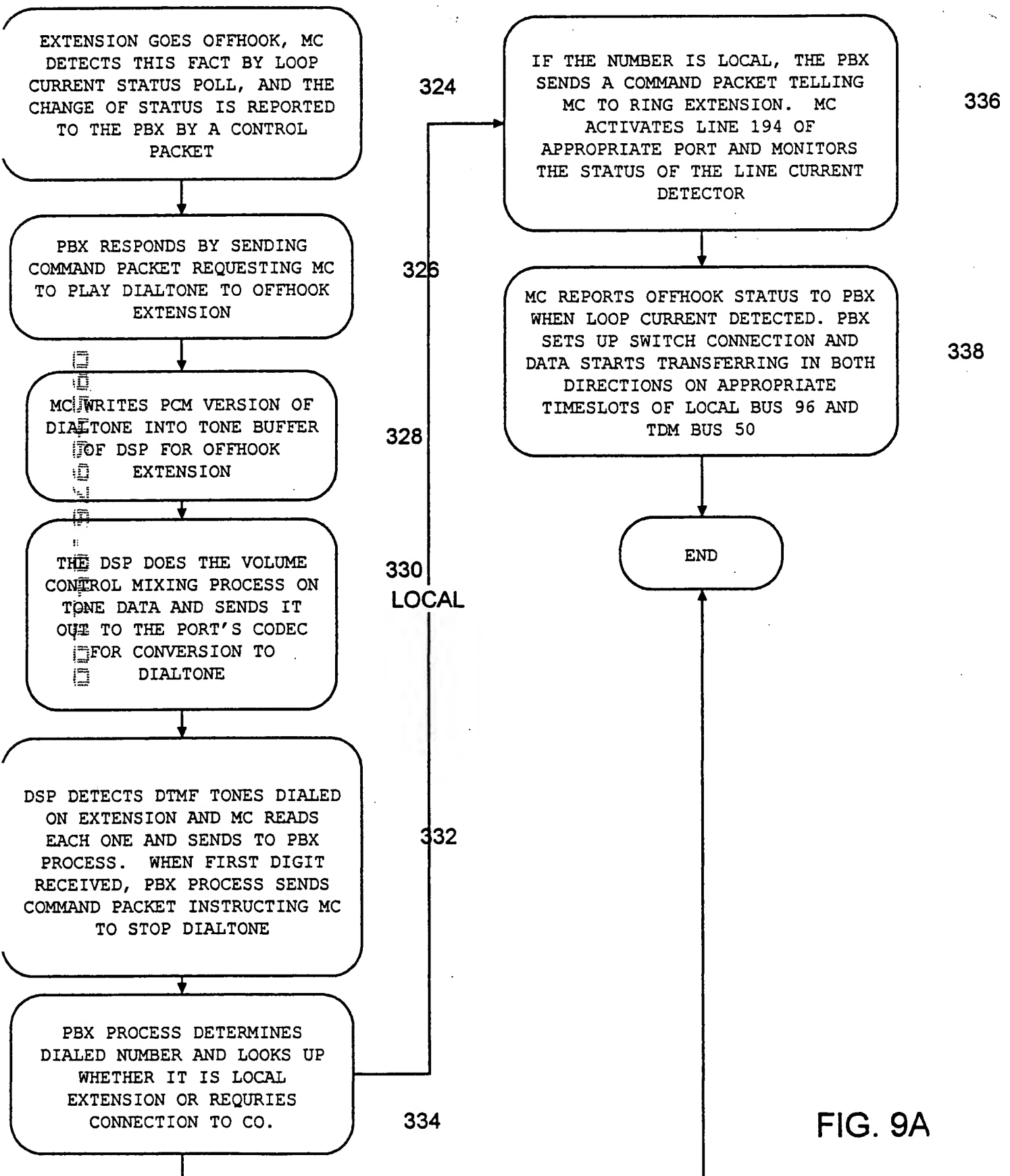


FIG. 9A

OUTSIDE CALL

PBX PROCESS OPTIONALLY DOES LEAST COST ROUTING AND OPTIONALLY DOES TOLL RESTRICTIONS. THEN SENDS COMMAND PACKET TO MC OF A PEU WITH AN AVAILABLE PORT CONNECTED TO CO TELLING IT TO GO OFFHOOK

340

MC ACTIVATES LINE 194 TO GO OFFHOOK ON CO PORT AND MONITORS LOOP CURRENT DETECTOR 196 TO DETERMINE WHEN CO GOES OFFHOOK. WHEN THE CO GOES OFFHOOK, THIS STATUS CHANGE IS REPORTED TO THE PBX

342

THE CO RESPONDS WITH DIALTONE AND THE DSP DETECTS IT AND INTERRUPTS MC. MC REPORTS DIALTONE TO PBX IN CONTROL PACKET

344

PBX PROCESS RESPONDS TO DIALTONE BY SENDING A CONTROL PACKET TO MC WITH DIALSTRING

346

MC RESPONDS BY WRITING PCM DATA FOR DIAL STRING CHARACTERS INTO APPROPRIATE TONE BUFFER OF DSP ASSIGNED TO CO PORT

348

DSP DOES VOLUME CONTROL MIXING AND SENDS RESULTING MIXED, VOLUME ADJUSTED TONE AND OTHER DATA TO CODEC ON APPROPRIATE TIMESLOT FOR CONVERSION TO ANALOG SIGNAL

350

MC REPORTS DIAL COMPLETED TO PBX. PBX RESPONDS BY MAKING SWITCH CONNECTIONS

352

CO SENDS RINGBACK TONE TO PEU PORT. DSP DETECTS RINGBACK TONE AND INTERRUPTS MC. MC INTERPRETS AND REPORTS RINGBACK STATUS TO PBX PROCESS. RINGBACK AND ANY CONVERSATION AFTER DIALED PHONE PICKED UP OR ANY VOICEMAIL PROMPTS ARE HEARD BY EXTENSION

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FIG. 9B

TEU PROCESSING FOR AN INCOMING T1 CALL

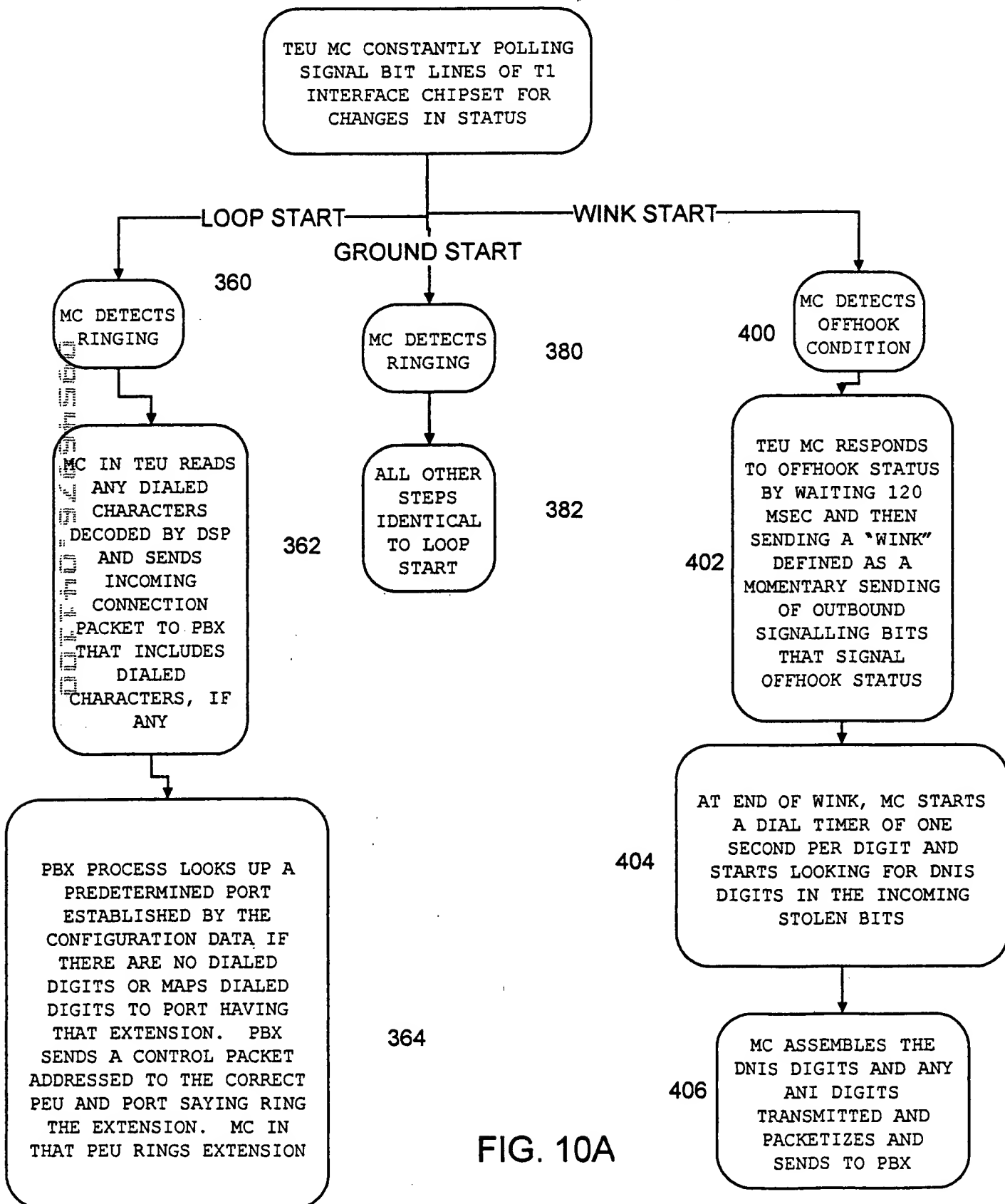


FIG. 10A

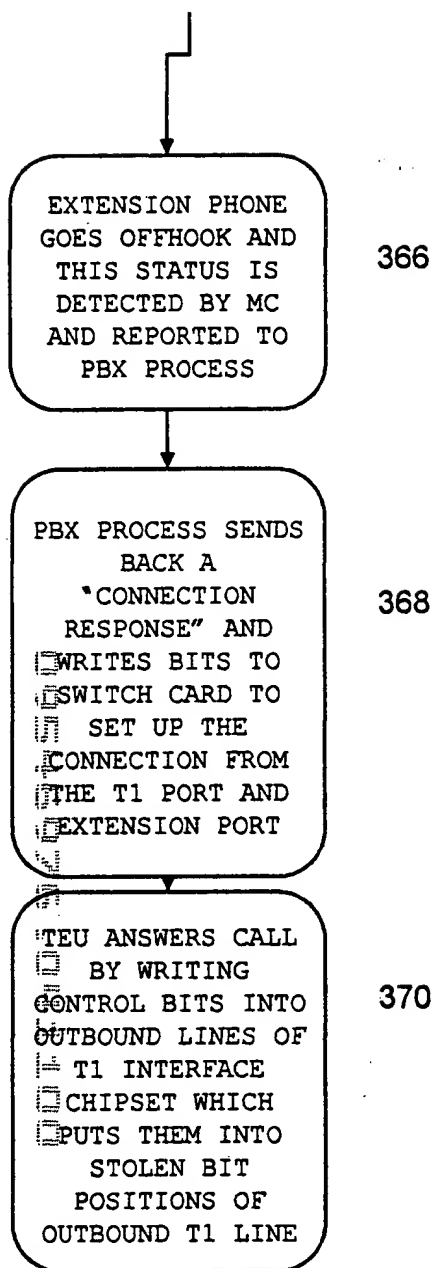
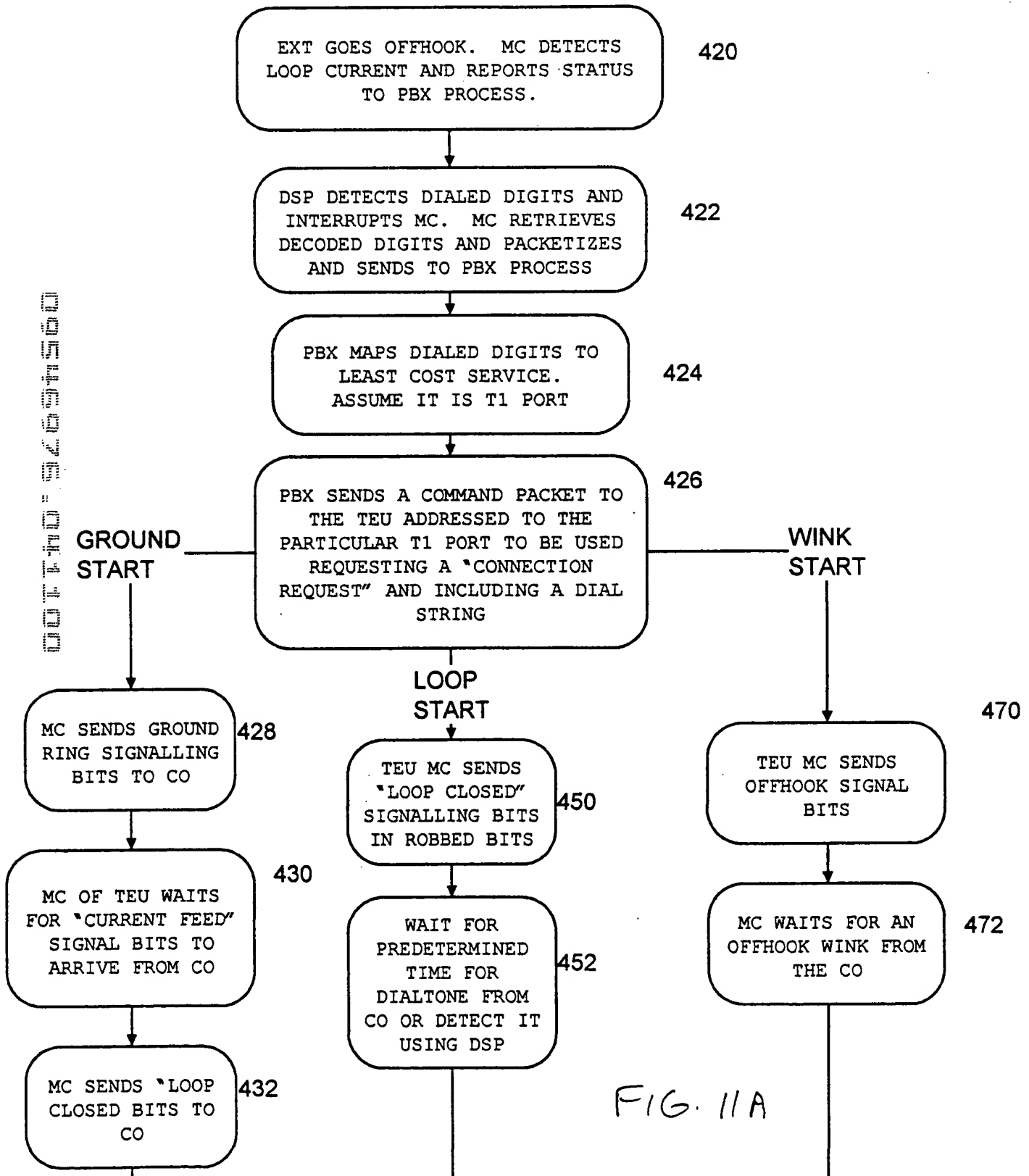


FIG. 10B

T1 TEU PROCESSING FOR OUTBOUND CALL



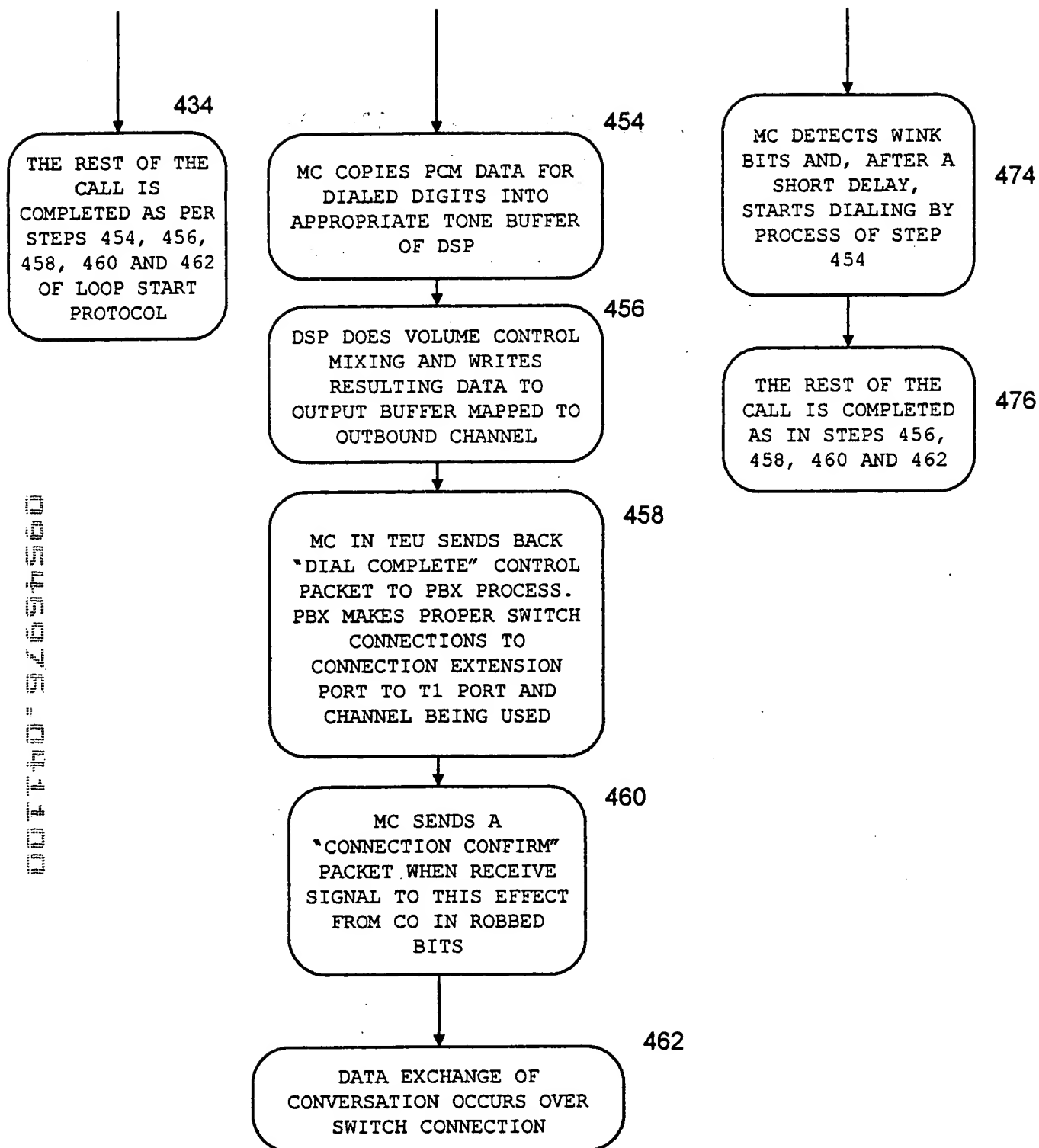


FIG. 11B

SWITCH CARD DSP CONFERENCING PROCESS

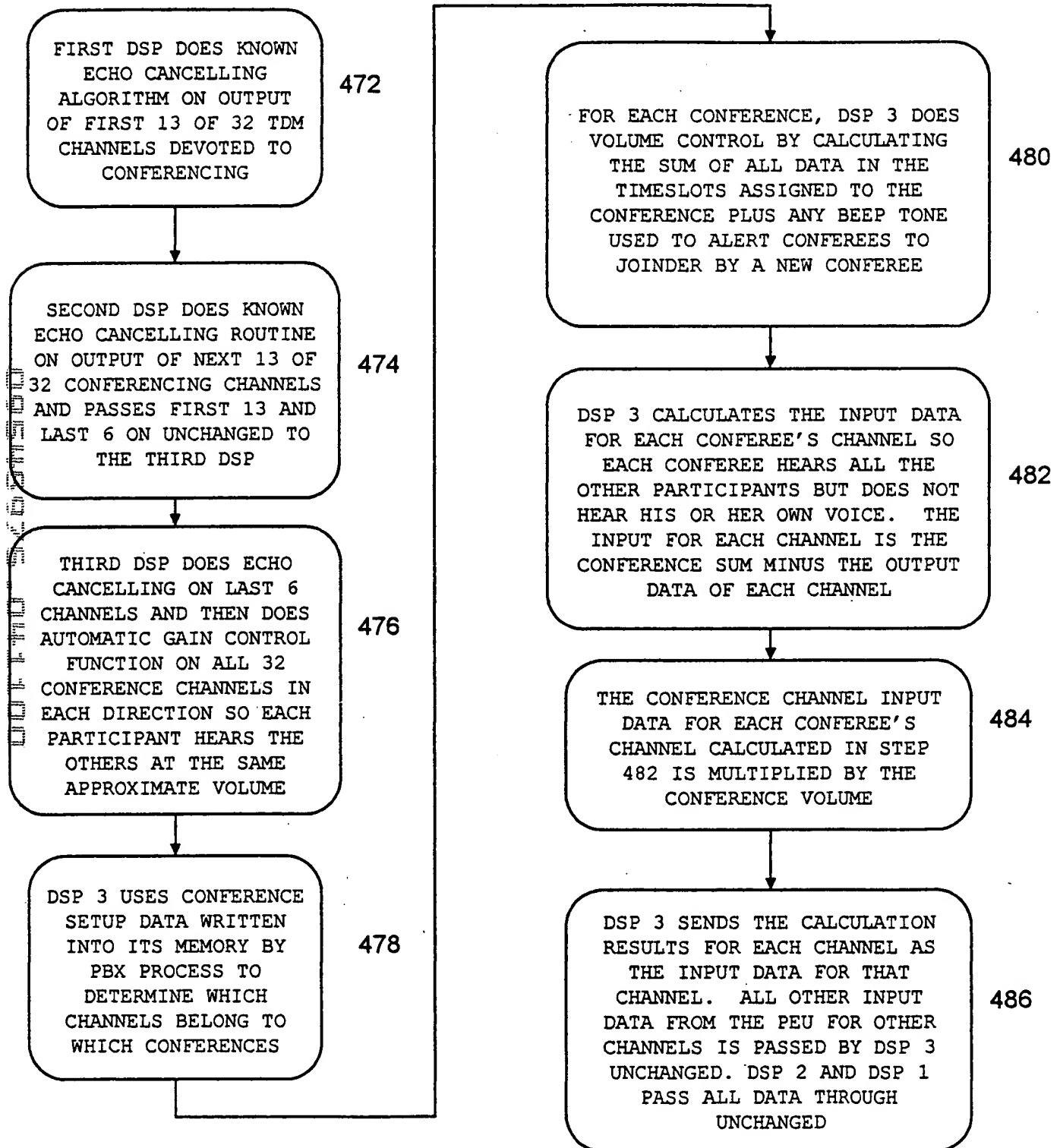


FIG. 12

ANALOG LOOP START PROTOCOL PROCESS - CO ORIGINATES CALL

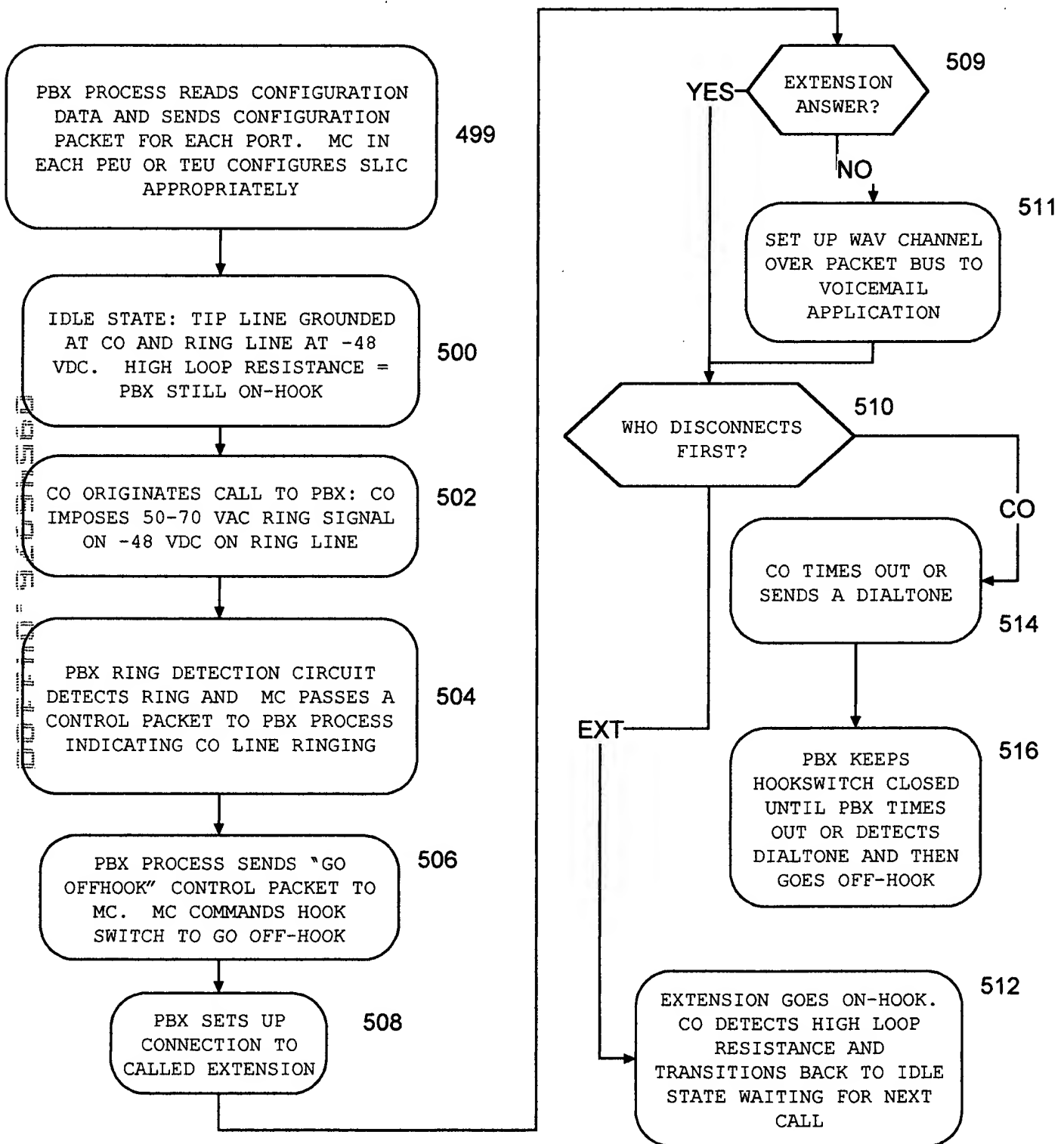


FIGURE 13

ANALOG LOOP START PROTOCOL PROCESS - PBX INITIATES THE CAL

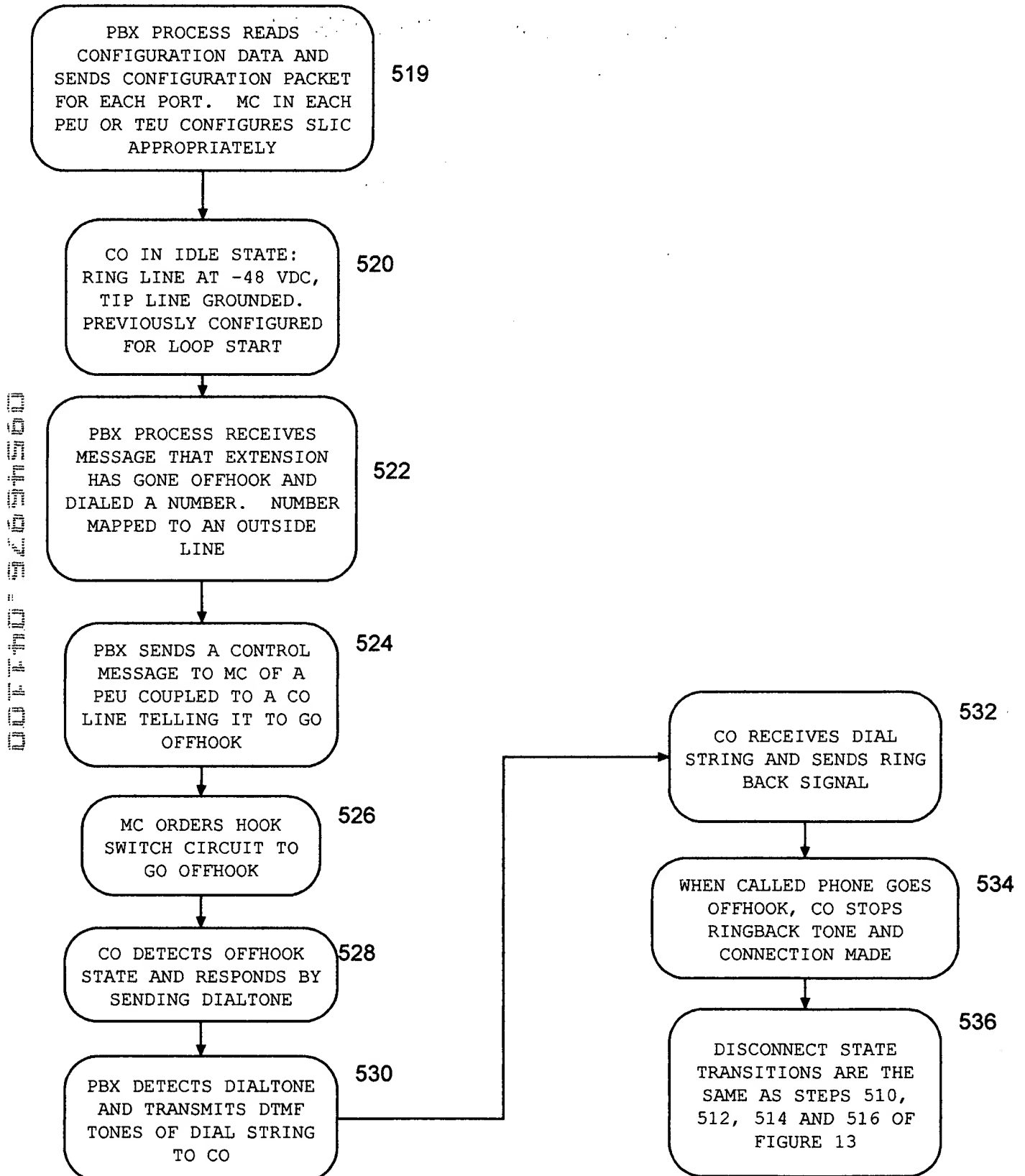


FIGURE 14

GROUND START SIGNALLING PROTOCOL - ANALOG CO LINE - CO ORIGINATES CAL

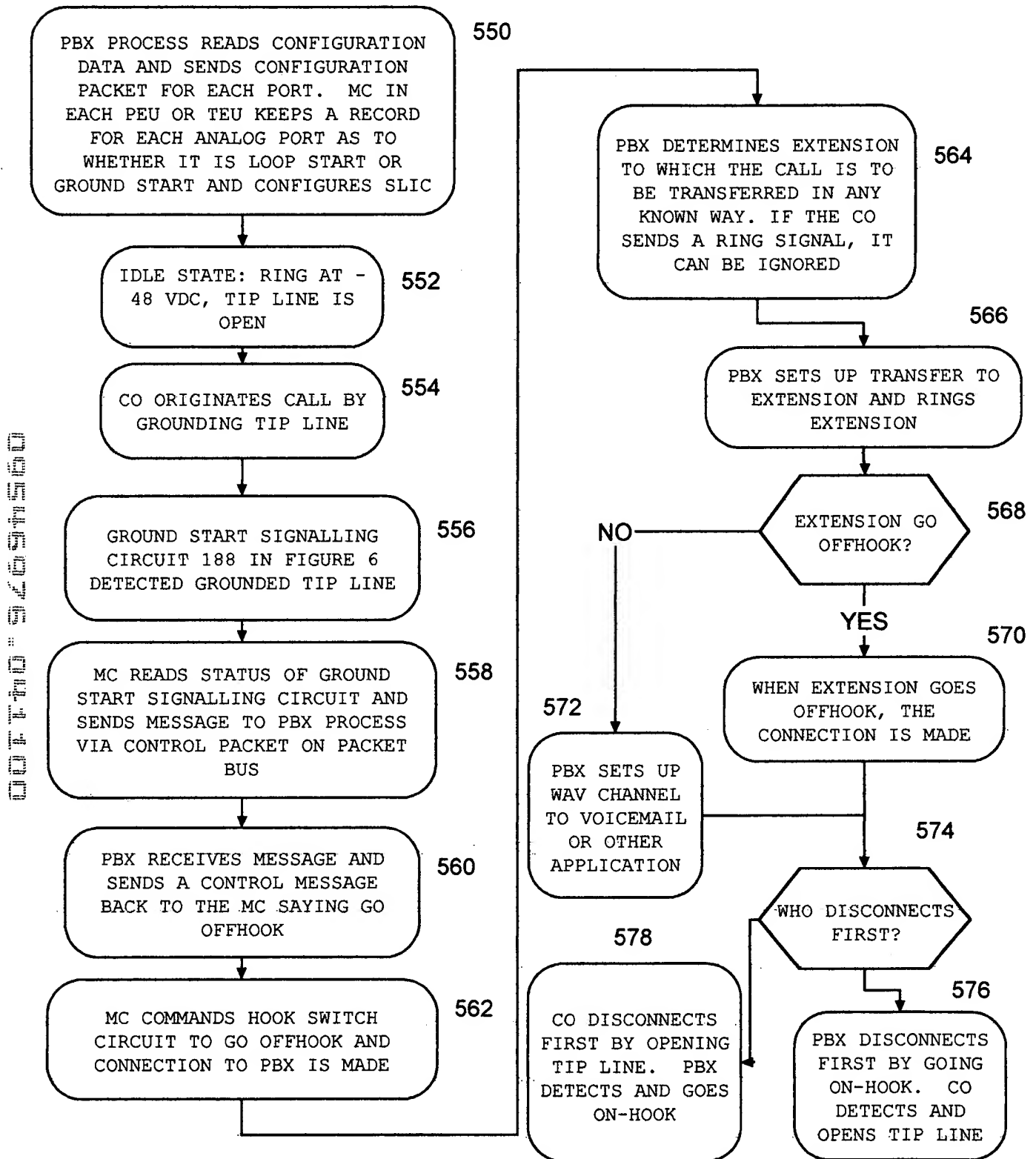


FIGURE 15

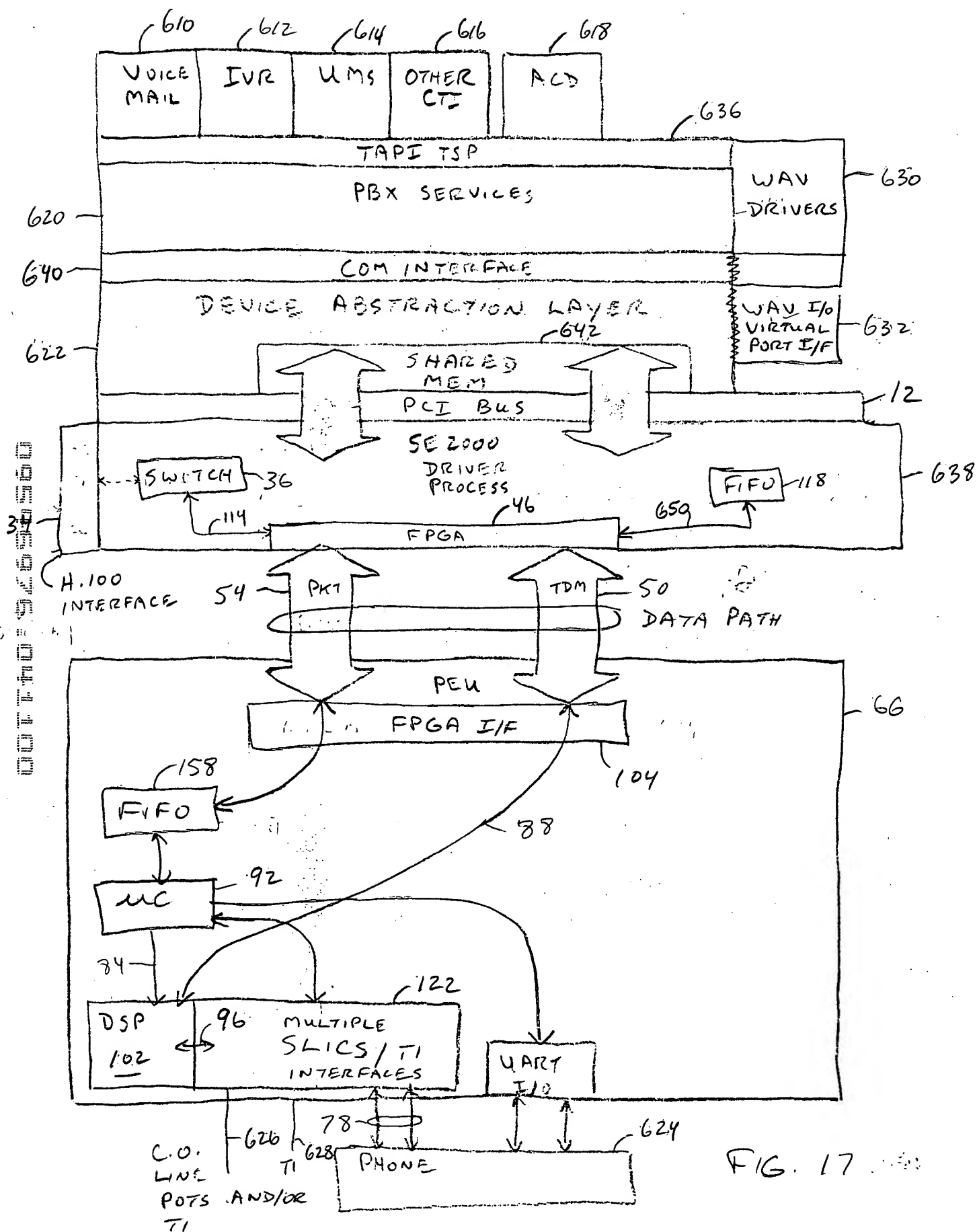


FIG. 17

